

Overview

This standard is concerned with the design and development of manual tests and automated scripts to test and verify the functionality, usability, compatibility, security and performance of software products and technology systems. It includes the preparation of test data and selection of procedures and methodologies to validate the tests.

Typical testing might include functional testing (often carried out during development work), integration testing, system testing, end user testing, acceptance testing and operational testing.

Performance criteria

You must be able to:

1. Review the software requirements specification to determine the test procedures, number of tests and test conditions required
2. Select and apply procedures, tools and techniques for software testing design as appropriate to the requirements
3. Review the test architecture to identify the test techniques that are required to support the test effort
4. Design test procedures and determine the suitability of manual or automated test approaches
5. Develop the test data requirements for each test procedure

Knowledge and understanding

You need to know and understand:

1. The basic principles of designing tests
2. How to review software requirements to determine test procedures required
3. The relevant and applicable legislation, regulations and external standards relating to software testing activities
4. The organisational policies, procedures and priorities for designing tests for software products
5. The scope of work to be carried out and the importance of keeping within these boundaries
6. The test scenarios, test cases, scripts and tools used within the organisation
7. The approved software testing tools and how to apply them
8. The approval process for testing the outcomes of software products
9. The different sources of information available for designing tests and how to access these
10. The concepts of code coverage
11. The different automated test tools available and how to apply them
12. How to determine whether test procedures are suitable to be automated
13. Current best practice in the design of tests for software products

Design tests for software products

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